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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,308	12/15/2003	Craig Hopper	200312849-1	5481
22879	7590	08/10/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			MORRISON, THOMAS A	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/736,308	HOPPER, CRAIG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thomas A. Morrison	3653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/15/03</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claims 2-9, 11-17 and 19-23 are objected to because of the following informalities: (1) these claims include “further comprised of”, “further comprise of”, “further comprised of the step of”, and “further comprised of the steps of”. These should be changed to “further comprising”, etc. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claims 1, 10 and 24, it is unclear what is meant by “an auxiliary drive roller that **exhibits slippage so that the auxiliary roller nip maintains constant contact** with a sheet of media to be duplexed” (emphasis added). What structure allows this to happen? How can a roller by itself perform this function?

Claims 4-8 and 12-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See

MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the drive roller shaft and the auxiliary drive roller in claims 4 and 12; (2) the structural relationship between the clutch and the other elements in claims 5 and 13; (3) the structural relationship between the bearing and the rest of the elements in claims 6 and 14; (4) the structural relationship between the magnetic coupling and the rest of the elements in claims 7 and 15; and (5) the structural relationship between the mini-fluid coupling and the rest of the elements in claims 8 and 16.

Regarding claim 9, it is unclear what is meant by "said media output nip that drive roller".

Regarding claims 18-23, it is unclear in claim 18, what is meant by "creating a slippage between said sheet and said auxiliary roller nip".

Claim 20 recites the limitation "said back stock" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 21, it is unclear what is meant by "creating a slippage between an auxiliary drive roller shaft and said auxiliary drive roller".

Claim 24 recites the limitation "the media input nip means" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "the auxiliary roller nip means" in line 4. There is insufficient antecedent basis for this limitation in the claim.

The above indefiniteness problems are exemplary. Applicant should review the claims and make the language consistent throughout the claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-7, 9-12, 14-15, 17-20, 22 and 24, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,887,868 (Lambert et al.).

Regarding independent claim 1, Figs. 1-5 show a duplexer, comprising:

a media input nip (including 96 and 94);

an auxiliary roller nip (including 114 and 116) located downstream of the media input nip (including 96 and 94) such that the auxiliary roller nip (including 114 and 116) comprises an auxiliary drive roller (114) that exhibits slippage so that the auxiliary roller nip (including 114 and 116) maintains constant contact with a sheet of media to be duplexed;

a backstop (Fig. 1) located downstream from the auxiliary roller nip (including 114 and 116); and

a media output nip (including 96 and 108) located adjacent to the auxiliary roller nip (including 114 and 116).

Regarding independent claim 10, Figs. 1-5 show a printing device, comprising:

a print engine (including 10);

a media input nip (including 94 and 96) operatively connected to the print engine (including 10);

an auxiliary roller nip (including 114 and 116) located downstream of the media input nip (including 94 and 96) such that the auxiliary roller nip (including 114 and 116) comprises an auxiliary drive roller (114) that exhibits slippage so that the auxiliary roller nip (including 114 and 116) maintains constant contact with a sheet of media to be duplexed;

a backstop (Fig. 1) located downstream from the auxiliary roller nip (including 114 and 116); and

a media output nip (including 96 and 108) located adjacent to the auxiliary roller nip (including 114 and 116).

Regarding claim 2, Figs. 1-5 show that the duplexer is further comprised of:

a print engine (including 10) operatively connected to the media input nip (including 96 and 94) and the media output nip (including 96 and 108).

Regarding claim 3, Figs. 1-5 show that the auxiliary roller nip (including 114 and 116) is further comprised of: an auxiliary idler roller (116) that maintains substantially continuous contact with the auxiliary drive roller (114).

Regarding claims 4 and 12, Figs. 1-5 show that the auxiliary drive roller (114) is further comprised of: a drive roller shaft; and a rotation slippage device (Figs. 2-3) operatively connected to the drive roller shaft (i.e., operatively connected via gear 124).

Regarding claims 6 and 14, the rotation slippage device (Figs. 2-3) is further comprise of: a bearing (i.e., whatever bearing supports the shaft of roller 114).

Regarding claims 7 and 15, Figs. 1-5 show that the rotation slippage device (Figs. 2-3) is further comprise of: a magnetic coupling (154 and/or 156).

Regarding claims 9 and 17, Figs. 1-5 show that the media output nip (including 96 and 108) is further comprised of: a media output nip drive roller (96); and a media output nip idler roller (108) located substantially adjacent to the media output nip that drive roller (96).

Regarding claim 11, Figs. 1-5 show that the auxiliary roller nip (including 114 and 116) is further comprised of: an auxiliary idler roller (116) that maintains substantially continuous contact with the auxiliary drive roller (114).

Regarding claim 18, Figs. 1-5 and column 5, line 40 to column 8, line 30 disclose a method for duplexing, comprising the steps of:

placing an image upon one side of a sheet of media by an image producing device (including 10);

transferring the sheet of media by a media input nip (including 94 and 96) towards an auxiliary roller nip (including 114 and 116);

transferring the sheet by the auxiliary roller nip (including 114 and 116) towards a backstop (Fig. 1);

interacting between an edge of the sheet and the backstop (Fig. 1) such that substantially any further forward motion of the sheet is prohibited;

creating a slippage between the sheet and the auxiliary roller nip (see e.g. Figs. 2-3 and column 7, lines 38-41));

transferring the sheet by the auxiliary roller nip (including 114 and 116) towards a media output nip (including 96 and 108); and

transferring the sheet to the image producing device (including 10) in order to place an image upon the other side of the sheet of media.

Regarding claim 19, Figs. 1-5 and column 6, lines 20-23 disclose that the method is further comprised of the step of: placing the images upon both sides of the sheet of media through the use of a print engine.

Regarding claim 20, Figs. 1-5 show that the step of transferring the sheet by the auxiliary roller nip (including 114 and 116) towards the back stock (Fig. 1) is further comprised of the steps of: continuously contacting an auxiliary idler roller (116) with an auxiliary drive roller (114) to create the auxiliary roller nip (including 114 and 116); and

causing the auxiliary drive roller (114) to rotate in a first direction.



Regarding claim 22, Figs. 1-5 disclose that the step of transferring the sheet by the auxiliary roller nip (including 114 and 116) towards a media output nip (including 96 and 108) is further comprised of the steps of: causing the auxiliary drive roller to rotate in a second direction; and

rotating a media output nip idler roller (108) towards a media output nip drive roller (96) in order to create the media output nip (including 96 and 108).

Regarding claim 24, Figs. 1-5 show a duplexer, comprising:

a means for creating a media input nip (including 94 and 96);

a means for creating an auxiliary roller nip (including 114 and 116) located downstream of the media input nip means (including 94 and 96) such that the auxiliary roller nip means (including 114 and 116) comprises an auxiliary drive roller (114) that exhibits slippage (via mechanism shown in Figs. 2-3) so that the auxiliary roller nip means (including 114 and 116) maintains constant contact with a sheet of media to be duplexed;

a means for creating a backstop (Fig. 1) located downstream from the auxiliary roller nip (including 114 and 116); and

a means for creating a media output nip (including 96 and 108) located adjacent to the auxiliary roller nip (including 114 and 116).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 16, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al. The Lambert et al. patent meets the limitations of claims 8 and 16 except that it employs a solenoid (154) rather than a mini fluid coupling (e.g., an air piston) in order to move a plate 144. However, these two elements were art recognized equivalents at the time of the invention in those plate-moving applications where it is immaterial whether the air piston or solenoid is used for moving a plate. Therefore, one of ordinary skill would have found it obvious to substitute an air piston (i.e., a mini fluid coupling) for the solenoid of Lambert et al. to facilitate moving of the plate as shown in Figs. 2-3 of Lambert et al. One of ordinary skill in the art would have been motivated to substitute the air piston for the solenoid, because this merely involves the substitution of one well-known linear movement device for another well-known linear movement device that performs the same function in substantially the same manner.

5. Claims 1-6, 9-14, 17-20, 22 and 24, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,382,013 (Walsh) in view of U.S. Patent No. 4,804,175 (Grandjean) or U.S. Patent No. 5,887,868 (Lambert et al.).

Regarding independent claim claim 1, Figs. 2-7 of Walsh show a duplexer, comprising:

a media input nip (including 44 and 46);

an auxiliary roller nip (including 74 and 72) located downstream of the media input nip (including 44 and 46) such that the auxiliary roller nip (including 74 and 72) comprises an auxiliary drive roller (72) that exhibits slippage so that the auxiliary roller nip (including 74 and 72) maintains constant contact with a sheet of media to be duplexed; and

a media output nip (including 46 and 48) located adjacent to the auxiliary roller nip (including 74 and 72). In fact, the Walsh patent discloses all of the features of claim 1, except that it does not specifically show a backstop.

Regarding independent claim 10, Figs. 2-7 and column 1, lines 1-13 of Walsh disclose a printing device, comprising:

a print engine (see e.g., column 1, line 10);

a media input nip (including 44 and 46) operatively connected to the print engine;

an auxiliary roller nip (including 74 and 72) located downstream of the media input nip (including 44 and 46) such that the auxiliary roller nip (including 74 and 72) comprises an auxiliary drive roller (72) that exhibits slippage so that the auxiliary roller nip (including 74 and 72) maintains constant contact with a sheet of media to be duplexed; and

a media output nip (including 46 and 48) located adjacent to the auxiliary roller nip (including 74 and 72).

Regarding independent claim 18, Figs. 2-7 of Walsh disclose a method for duplexing, comprising the steps of:

placing an image upon one side of a sheet of media by an image producing device (see e.g. column 1, lines 5-20);

transferring the sheet of media by a media input nip (including 44 and 46) towards an auxiliary roller nip (including 74 and 72);

creating a slippage (via element 84) between the sheet and the auxiliary roller nip (including 74 and 72);

transferring the sheet by the auxiliary roller nip (including 74 and 72) towards a media output nip (including 46 and 48); and

transferring the sheet to the image producing device in order to place an image upon the other side of the sheet of media (see e.g. column 1, lines 5-20).

Regarding independent claim 24, Figs. 2-7 of Walsh show a duplexer, comprising:

a means for creating a media input nip (including 44 and 46);

a means for creating an auxiliary roller nip (including 74 and 72) located downstream of the media input nip means (including 44 and 46) such that the auxiliary

roller nip means (including 74 and 72) comprises an auxiliary drive roller (72) that exhibits slippage so that the auxiliary roller nip means (including 74 and 72) maintains constant contact with a sheet of media to be duplexed; and

a means for creating a media output nip (including 46 and 48) located adjacent to the auxiliary roller nip (including 74 and 72).

Regarding independent claims 1, 10, 18 and 24, the Grandjean patent discloses that it is well known to provide a duplexer with a backstop or backstop means (38) located downstream from an auxiliary roller nip (including 33 and 34) to receive and hold a sheet in place when it becomes disengaged from the auxiliary nip (including 33 and 34). See, e.g., Figs. 6-7 and column 5, lines 32-37 of Grandjean.

Similarly, the Lambert et al. patent discloses that it is well known to provide a duplexer with a backstop or backstop means (Fig. 1) located downstream from an auxiliary roller nip (including 116 and 114) to receive and hold a sheet in place when it becomes disengaged from the auxiliary nip (including 116 and 114). See, e.g., Fig. 1 of Lambert et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide duplexer of the Walsh patent with a backstop to prevent sheets that are duplexed from falling out of the bottom of the duplexer should such sheet become disengaged from the auxiliary nip (including 74 and 72) of Walsh, as taught by Grandjean or Lambert et al. The Grandjean and Lambert et al. patents both show interacting between an edge of a sheet and the backstop such that substantially any further forward motion of the sheet is prohibited, as claimed.

Regarding claim 2, column 1, lines 8-11 of Walsh disclose that the duplexer can further comprise a print engine operatively connected to the media input nip (including 44 and 46) and the media output nip (including 46 and 48).

Regarding claim 3, Figs. 2-7 of Walsh show that the auxiliary roller nip (including 74 and 72) is further comprised of: an auxiliary idler roller (74) that maintains substantially continuous contact with the auxiliary drive roller (72).

Regarding claim 4 and 12, Figs. 2-7 of Walsh show that the auxiliary drive roller (72) is further comprised of: a drive roller shaft (100); and a rotation slippage device (84) operatively connected to the drive roller shaft (100).

Regarding claims 5 and 13, Figs. 2-7 of Walsh show that the rotation slippage device (84) is further comprise of: a clutch.

Regarding claims 6 and 14, column 6, lines 2-4 of Walsh disclose that the rotation slippage device is further comprise of: a bearing.

Regarding claim 9 and 17, Figs. 2-7 of Walsh show that the media output nip (including 46 and 48) is further comprised of: a media output nip drive roller (46); and a media output nip idler roller (48) located substantially adjacent to the media output nip that drive roller (46).

Regarding claim 11, Figs. 2-7 of Walsh show that the auxiliary roller nip (including 74 and 72) is further comprised of: an auxiliary idler roller (74) that maintains substantially continuous contact with the auxiliary drive roller (72).

Regarding claim 19, column 1, lines 5-20 of Walsh disclose that the method is further comprised of the step of: placing the images upon both sides of the sheet of media through the use of a print engine. See also column 1, line 67 to column 2, line 14.

Regarding claim 20, providing the duplexer of Walsh with a backstop in a manner as taught by Grandjean or Lambert et al. will result in the step of transferring the sheet by the auxiliary roller nip (including 74 and 72) of Walsh towards the back stock and the auxiliary idler roller (74) of Walsh will be continuously contacted with an auxiliary drive roller (72) of Walsh to create the auxiliary roller nip (including 74 and 72) of Walsh; and the auxiliary drive roller (72) of Walsh will rotate in a first direction.

Regarding claim 22, as best understood, Fig. 2 of Walsh shows that the step of transferring the sheet by the auxiliary roller nip (including 74 and 72) towards a media output nip (including 46 and 48) includes causing the auxiliary drive roller (72) to rotate in a second direction; and rotating a media output nip idler roller (48) towards (i.e., in the same direction) a media output nip drive roller (46) in order to create the media output nip.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh in view of Grandjean or Lambert et al. as applied to claim 20 above, and further in view of U.S. Patent No. 4,780,745 (Kodama). Walsh in view of Grandjean or Lambert et al. discloses the claim invention, except that this combination teaches a slipping assembly having a first shaft portion (100) with a roller (72) and an output portion of a

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clutch (84) fixed thereto, and a second shaft portion with an input portion of clutch (84) connected thereto to allow the first and second shaft portions to slip relative to one another and stop the roller (72) from rotating, rather than a slipping assembly with a shaft that slips relative to a roller to stop rotation of the roller.

Kodama discloses a slipping assembly with a shaft, a roller (24) and a clutch between the roller (24) and the shaft, as an equivalent structure known in the art to selectively slip parts relative to one another to stop rotation of a roller. See, e.g., column 7, lines 23-31. Therefore, because these two slipping assemblies were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the slipping assembly shown in Walsh with the slipping assembly of Kodama.

#### ***Allowable Subject Matter***

7. Claim 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,271,614 (Yamada et al.) discloses that an air piston is equivalent to a solenoid.



9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

08/04/2006



**PATRICK MACKEY  
PRIMARY EXAMINER**